CLAIMS

1. A method for testing a receiver of a wireless messaging device in a mobile communication system, comprising

generating (604) a test signal which contains physical time-slots, at least one of which is allocated for transmission of system information from a base transceiver station of the mobile communication system to the messaging device,

characterized by

positioning (606) a synchronization sequence supported by the mobile communication system in a time-slot allocated for transmission of system information.

2. A method according to claim 1, **characterized** by

converting (608) the test signal to radio frequency; and

transmitting (610) the test signal to the receiver at the radio frequency.

3. A method according to claim 1, **characterized** by positioning (606) a frequency synchronization sequence supported by the mobile communication system in a time-slot allocated for transmission of system information;

identifying (720) the frequency synchronization sequence from the test signal; and

frequency-synchronizing (722) the receiver by means of the frequency synchronization sequence.

4. A method according to claim 1, **characterized** by positioning (606) a time synchronization sequence supported by the mobile communication system in a time-slot allocated for transmission of system information;

identifying (726) the time synchronization sequence from the test signal; and

time-synchronizing (728) the receiver by means of the time synchronization sequence.

5. A method according to claim 1, **characterized** by positioning (606) a frequency synchronization sequence supported by the mobile communication system in the first time-slot allocated for transmission of system information; and

positioning (606) a time synchronization sequence supported by the mobile communication system in the second time-slot allocated for transmission of system information in such a way that the interval between the front edge of the first time-slot and the front edge of the second time-slot is 8 time-slots.

6. A method according to claim 1, **characterized** by generating (604) a test signal containing a 51-frame multi-frame, which has a plurality of time-slots allocated for transmission of system information; and

positioning (606) synchronization sequences supported by the mobile communication system in time-slots allocated for transmission of system information in such a way that the synchronization sequence is repeated at least 11 times in the 51-frame multi-frame.

7. A method according to claim 1, **characterized** by positioning (702) a test sequence in the test signal;

receiving (704) the test signal;

identifying (706) the test sequence from the test signal;

generating (708) a variable characterizing the receiver by means of the test sequence;

transmitting (710) a signal containing the receiver-characterizing variable from the wireless messaging device; and

receiving (712) the signal containing the receiver-characterizing variable from the wireless messaging device.

8. A method according to claim 1, **characterized** by positioning (606) a synchronization sequence supported by the mobile communication system in a time-slot allocated for transmission of system information, which synchronization sequence contains at least one of the following: the training sequence code of a synchronization channel (SCH) according to the GSM standard; bits of a frequency correction channel (FCCH) according to the GSM standard.

9. A method according to claim 1, **characterized** by transmitting (610) the test signal to the receiver via an antenna connection of the receiver.

10. A method according to claim 1, **characterized** by loading (602) to the wireless messaging device a computer program which executes a computer process comprising the steps of:

receiving the test signal as input;

identifying the synchronization sequence from the test signal; and

synchronizing the receiver by means of the synchronization sequence.

11. A method according to claim 1, **characterized** by identifying (612) the synchronization sequence from the test signal; and

synchronizing (614) the receiver by means of the synchronization sequence.

12. A system for testing a receiver of a wireless messaging device in a mobile communication system, comprising

a test-signal generator (102) for generating a test signal (106), which test signal (106) contains physical time-slots (4A to 4J), at least one of which time-slots (4A, 4J) is allocated for transmission of system information from a base transceiver station of the mobile communication system to the messaging device (112), **characterized** in that

the test-signal generator (102) is configured to position a synchronization sequence supported by the mobile communication system in a time-slot (4A, 4J) allocated for the transmission of system information.

13. A system according to claim 12, **characterized** in that the system further comprises:

conversion means (104) connected to the test-signal generator (102) for converting the test signal (106) to radio frequency; and

transmission means (110) connected to conversion means (104) for transmitting the test signal (106) to the receiver at the radio frequency.

14. A system according to claim 13, **characterized** in that the transmission means (110) are connected to an antenna connector of the wireless messaging device.

15. A system according to claim 12, **characterized** in that the test-signal generator (102) is configured to position one of the following in a time-slot (4A, 4J) allocated for transmission of system information: a time synchronization sequence supported by the mobile communication system, a frequency synchronization sequence supported by the mobile communication system.

16. A system according to claim 12, **characterized** in that the test-signal generator (102) is configured to position a frequency synchronization sequence supported by the mobile communication system in the first time-slot (4A) allocated for transmission of system information; and

that the test-signal generator (102) is configured to position a time synchronization sequence supported by the mobile communication system in the second time-slot (4J) allocated for transmission of system information in such a way that the interval between the front edge of the first time-slot and the front edge of the second time-slot is 8 time-slots.

17. A system according to claim 12, **characterized** in that the test-signal generator (102) is configured to generate a test signal (106) containing a 51-frame multi-frame (500), which has a plurality of time-slots (5C, 5D) allocated for transmission of system information; and

the test-signal generator (102) is configured to position synchronization sequences supported by the mobile communication system in time-slots (5C, 5D) allocated for transmission of system information in such a way that the synchronization sequence is repeated at least 11 times in the 51-frame multi-frame.

18. A system according to claim 12, **characterized** in that the test-signal generator (102) is configured to position in the test signal (106) a test sequence, of which the receiver generates a variable characterizing the receiver.

19. A system according to claim 12, **characterized** in that the test-generator (102) is configured to position a synchronization sequence supported by the mobile communication system in a time-slot (4A, 4J) allocated for transmission of system information, which synchronization sequence contains at least one of the following: the training sequence code of a synchronization channel (SCH) according to the GSM standard; bits of a frequency correction channel (FCCH) according to the GSM standard.

20. A system according to claim 12, **characterized** in that the system further comprises a connection unit (134) for receiving from the wireless messaging device a signal (126) that contains a variable characterizing the receiver.

21. A system according to claim 12, **characterized** in that the system comprises a loading unit (144) for loading a computer program to the wireless messaging device, which computer program executes a computer process comprising the steps of:

receiving the test signal as input;

identifying the synchronization sequence from the test signal; and

synchronizing the receiver by means of the synchronization sequence.

22. A computer program for executing a computer process for testing a receiver of a wireless messaging device in a mobile communication system, the computer process being **characterized** in that it comprises the steps of:

receiving (610B) as input a test signal containing physical time-slots, at least one of which is allocated for transmission of system information from a base transceiver station of the mobile communication system to the messaging device, a synchronization sequence supported by the mobile communication system being positioned in this time-slot;

identifying (612) the synchronization sequence from the test signal; and

synchronizing (614) the receiver by means of the synchronization sequence.

23. A computer program according to claim 22, **characterized** in that the computer process comprises:

receiving (718) the test signal as input, a frequency synchronization sequence being positioned in at least one of its time-slots allocated for transmission of system information;

identifying (720) the frequency synchronization sequence from the test signal; and

frequency-synchronizing (722) the receiver by means of the frequency synchronization sequence.

24. A computer program according to claim 22, **characterized** in that the computer process comprises the steps of:

receiving (724) the test signal as input, a time synchronization sequence being positioned in at least one of its time-slots allocated for transmission of system information;

identifying (726) the time synchronization sequence from the test signal; and

time-synchronizing (728) the receiver by means of the time-synchronization sequence.

25. A computer program according to claim 22, **characterized** in that the computer process comprises:

receiving (610B) as input a test signal which contains a 51-frame multi-frame with a plurality of time-slots allocated for transmission of system information, synchronization sequences supported by the mobile communication system being positioned in time-slots in such a way that repetition of the synchronization sequence in the 51-frame multi-frame is at least one of the following: 7 times, 11 times; and

synchronizing (614) the receiver by means of the synchronization sequences.

26. A computer program according to claim 22, **characterized** in that the computer process comprises:

receiving (704) as input the test signal that contains a test sequence;

identifying (706) the test sequence from the test signal;

generating (909) a variable characterizing the receiver by means of the test sequence; and

outputting (710) the signal containing the receiver-characterizing variable to an external bus of the wireless messaging device.

27. A computer program according to claim 22, **characterized** in that the computer process comprises receiving (610B) as input the test signal that contains physical time-slots, at least one of which time-slots is allocated for transmission of system information from the base transceiver station to the messaging device, and in which time-slot a synchronization sequence supported by the mobile communication system is positioned, the synchronization sequence comprising at least one of the following: the training sequence code of a synchronization channel (SCH) according to the GSM standard; bits of a frequency correction channel (FCCH) according to the GSM standard.